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EXAMINER

LAO, TIM P

ART UNIT	PAPER NUMBER
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2655

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5

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/809,017

Applicant(s)

BARILE, STEVEN E.

Examiner

Tim Lao

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

**DETAILED ACTION*****Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7, 9, 12-13, 18-21, 23, and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Georges (U.S. Patent Publication 2004/0074377, hereinafter "Georges") in view of Flanagan et al. (U.S. Patent 3,828,132, hereinafter "Flanagan"), and further in view of Slaney (U.S. Patent 5,749,073, hereinafter "Slaney").

Claim(s)	<u>Georges shows:</u>
1	<p>A method for matching voice characteristics of a disc jockey, said method comprising:</p> <p>receiving, by a sound characteristic estimator (e.g., DMM Fig.2: 1), a first segment of audio signal (e.g., first song);</p> <p>determining, by said sound characteristic estimator, a first set of sound characteristics (e.g., pitch, tempo: p.2, ¶ 0031, ll.6-8) from said first segment of audio signal (e.g., first song);</p> <p>receiving, by said sound characteristic estimator (e.g., DMM Fig.2: 1), a second segment of audio signal (e.g., second song);</p> <p>determining, by said sound characteristic estimator, a second set of sound characteristics (e.g., pitch, tempo: p.2, ¶ 0031, ll.6-8) from said second segment of audio signal (e.g., second song); and</p>

	<p>generating a voice characteristic transition for said disc jockey between a starting time and ending time. (p.1, ¶ 0013, ll.7-11; p.2, ¶ 0028)</p> <p><u>Georges does not show:</u></p> <p>interpolating from said first set of sound characteristics to said second set of sound characteristics.</p> <p><u>Flanagan teaches:</u></p> <p>modifying voice characteristics (e.g., formant frequencies, pitch, amplitude) of synthesized speech. (col.2, ll.42-66; col.7, ll.6-46; col.8, ll.10-17)</p> <p><u>Slaney teaches:</u></p> <p>interpolating between sound characteristics (e.g., pitch) and voice characteristics (e.g., loudness). (col.2, ll.64-67; col.3, ll.1-10; col.4, ll.5-14, ll.37-65; col.8, ll.14-29)</p> <p>It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the method of generating voice characteristic transition of Georges to include modification of voice characteristics of synthesized speech as taught by Flanagan and interpolation between sound and voice characteristics as taught by Slaney in order to interpolate a voice characteristic transition for a disc jockey from a first set of sound characteristics to a second set of sound characteristics. The result would be a smooth sound transition from music to voice (Slaney: col.3, ll. 62-65) and a more natural sounding synthetic utterance (Flanagan: see Abstract, last 2 lines).</p>
Claim(s) 2	<p><u>Georges shows:</u></p> <p>The method according to claim 1, wherein said first segment of audio signal includes an audio signal of a song. (p.1, ¶ 0012)</p>
Claim(s) 3	<p><u>The combination of Georges, Flanagan, and Slaney does not show:</u></p> <p>The method according to claim 1, wherein said first segment of audio signal includes</p>

	<p>an audio signal of a sports program.</p> <p>It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the segment of audio signal of Georges to include an audio signal of a sports program in order to include a variety program beside music because radio listeners often want to get sports information as well traffic and weather report in addition to music.</p>
Claim(s) 4	<p><u>Georges shows:</u></p> <p>The method according to claim 1, wherein said sound characteristics include pitch. (p.2, ¶ 0031, ll.6-8)</p>
Claim(s) 5	<p><u>Georges shows:</u></p> <p>The method according to claim 1, wherein said sound characteristics include tempo. (p.2, ¶ 0031, ll.6-8)</p>
Claim(s) 6	<p><u>Georges shows:</u></p> <p>The method according to claim 1, wherein said sound characteristics include volume. (p.2, ¶ 0032, ll.23-26)</p>
Claim(s) 7	<p><u>Georges does not show:</u></p> <p>The method according to claim 1, wherein said interpolating comprises:</p> <p>converting said first set and said second set of sound characteristics of said segments of audio signals to a corresponding first set of voice characteristics and second set of voice characteristics of said disc jockey; and</p> <p>generating an interpolation between said first set of voice characteristics and said second set of voice characteristics of said disc jockey to produce said voice characteristics transition.</p>

	<p><u>Flanagan teaches:</u></p> <p>modifying voice characteristics (e.g., formant frequencies, pitch, amplitude) of synthesized speech. (col.2, ll.42-66; col.7, ll.6-46; col.8, ll.10-17)</p> <p><u>Slaney teaches:</u></p> <p>converting a set of sound characteristics (e.g., pitch) to a set of voice characteristics (e.g., loudness). (col.4, ll.5-14).</p> <p>interpolating between sound characteristics (e.g., pitch) and voice characteristics (e.g., loudness). (col.2, ll.64-67; col.3, ll.1-10; col.4, ll.37-65; col.8, ll.14-29)</p> <p>It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the method of generating voice characteristic transition of Georges to include modification of voice characteristics of synthesized speech as taught by Flanagan and interpolation between sound and voice characteristics as taught by Slaney in order to interpolate a voice characteristic transition for a disc jockey from a first set of sound characteristics to a second set of sound characteristics. The result would be a smooth sound transition from music to voice (Slaney: col.3, ll. 62-65) and a more natural sounding synthetic utterance (Flanagan: see Abstract, last 2 lines).</p>
Claim(s) 9	<p><u>The combination of Georges, Flanagan, and Slaney shows:</u></p> <p>The method according to claim 7, wherein said generating an interpolation includes generating a voice transition between a voice characteristic from said first set of voice characteristics (e.g., loudness) and a corresponding voice characteristic from said second set of voice characteristics (e.g., loudness). (Slaney: col.8, ll.14-29)</p>
Claim(s) 12	<p><u>The combination of Georges, Flanagan, and Slaney shows:</u></p> <p>The method according to claim 7, wherein said voice characteristics include loudness (e.g., amplitude/intensity). (Flanagan: Fig.1: 15; col.8, ll.36-45)</p>
Claim(s)	<p><u>The combination of Georges, Flanagan, and Slaney shows:</u></p>

13	<p>The method according to claim 7, wherein said voice characteristics include prosody. (Flanagan: col.4, ll.25-28)</p>
Claim(s) 18	<p><u>Georges shows:</u></p> <p>A computer-readable medium (e.g., EPROM: p.5, ¶ 0057) encoded with a plurality of processor-executable instruction sequences (e.g., microprocessor program) for:</p> <p>receiving, by a sound characteristic estimator (e.g., DMM Fig.2: 1), a first segment of audio signal (e.g., first song);</p> <p>determining, by said sound characteristic estimator, a first set of sound characteristics (e.g., pitch, tempo: p.2, ¶ 0031, ll.6-8) from said first segment of audio signal (e.g., first song);</p> <p>receiving, by said sound characteristic estimator (e.g., DMM Fig.2: 1), a second segment of audio signal (e.g., second song);</p> <p>determining, by said sound characteristic estimator, a second set of sound characteristics (e.g., pitch, tempo: p.2, ¶ 0031, ll.6-8) from said second segment of audio signal (e.g., second song); and</p> <p>generating a voice characteristic transition for said disc jockey between a starting time and ending time. (p.1, ¶ 0013, ll.7-11; p.2, ¶ 0028)</p> <p><u>Georges does not show:</u></p> <p>interpolating from said first set of sound characteristics to said second set of sound characteristics.</p> <p><u>Flanagan teaches:</u></p> <p>modifying voice characteristics (e.g., formant frequencies, pitch, amplitude) of synthesized speech. (col.2, ll.42-66; col.7, ll.6-46; col.8, ll.10-17)</p>

	<p><u>Slaney teaches:</u></p> <p>interpolating between sound characteristics (e.g., pitch) and voice characteristics (e.g., loudness). (col.2, ll.64-67; col.3, ll.1-10; col.4, ll.5-14, ll.37-65; col.8, ll.14-29)</p> <p>It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the method of generating voice characteristic transition of Georges to include modification of voice characteristics of synthesized speech as taught by Flanagan and interpolation between sound and voice characteristics as taught by Slaney in order to interpolate a voice characteristic transition for a disc jockey from a first set of sound characteristics to a second set of sound characteristics. The result would be a smooth sound transition from music to voice (Slaney: col.3, ll. 62-65) and a more natural sounding synthetic utterance (Flanagan: see Abstract, last 2 lines).</p>
Claim(s) 19	<p><u>The combination of Georges, Flanagan, and Slaney does not show:</u></p> <p>The computer-readable medium according to claim 18, wherein said first segment of audio signal includes an audio signal of a news program.</p> <p>It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the segment of audio signal of Georges to include an audio signal of a news program in order to include a variety program beside music because radio listeners often want to get news information as well traffic and weather report in addition to music.</p>
Claim(s) 20	<p><u>Georges shows:</u></p> <p>The computer-readable medium according to claim 18, wherein said sound characteristics include tempo. (p.2, ¶ 0031, ll.6-8)</p>
Claim(s) 21	<p><u>Georges does not show:</u></p> <p>The computer-readable medium according to claim 18, wherein said interpolating comprises:</p>



	<p>converting said first set and said second set of sound characteristics of said segments of audio signals to a corresponding first set of voice characteristics and second set of voice characteristics of said disc jockey; and</p> <p>generating an interpolation between said first set of voice characteristics and said second set of voice characteristics of said disc jockey to produce said voice characteristics transition.</p> <p><u>Flanagan teaches:</u></p> <p>modifying voice characteristics (e.g., formant frequencies, pitch, amplitude) of synthesized speech. (col.2, ll.42-66; col.7, ll.6-46; col.8, ll.10-17)</p> <p><u>Slaney teaches:</u></p> <p>converting a set of sound characteristics (e.g., pitch) to a set of voice characteristics (e.g., loudness). (col.4, ll.5-14).</p> <p>interpolating between sound characteristics (e.g., pitch) and voice characteristics (e.g., loudness). (col.2, ll.64-67; col.3, ll.1-10; col.4, ll.37-65; col.8, ll.14-29)</p> <p>It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the method of generating voice characteristic transition of Georges to include modification of voice characteristics of synthesized speech as taught by Flanagan and interpolation between sound and voice characteristics as taught by Slaney in order to interpolate a voice characteristic transition for a disc jockey from a first set of sound characteristics to a second set of sound characteristics. The result would be a smooth sound transition from music to voice (Slaney: col.3, ll. 62-65) and a more natural sounding synthetic utterance (Flanagan: see Abstract, last 2 lines).</p>
Claim(s) 23	<p><u>The combination of Georges, Flanagan, and Slaney shows:</u></p> <p>The computer-readable medium according to claim 21, wherein said generating an interpolation includes generating a voice transition between a voice characteristic (e.g., loudness) from said first set of voice characteristics and a voice characteristic (e.g., loudness)</p>

	from said second set of voice characteristics. (Slaney: col.8, ll.14-29)
Claim(s) 26	<p><u>Georges shows:</u></p> <p>A system for matching voice characteristics of a disc jockey, said system comprising:</p> <p>a sound characteristic estimator (e.g., DMM Fig.2: 1),, said estimator being configured to receive a first and a second segment of audio signal (e.g., first and second song), and to respectively determine a first and a second set of sound characteristics (e.g., pitch and tempo: p.2, ¶ 0031, ll.6-8) from said first and second segments of audio signal; and</p> <p>a synthesizer (Fig.3: 39) for generating a voice characteristic transition for said disc jockey between a starting time and ending time. (p.1, ¶ 0013, ll.7-11; p.2, ¶ 0028)</p> <p><u>Georges does not show:</u></p> <p>an interpolator, said interpolator being configured to interpolate a voice characteristic transition for said disc jockey from said first set of sound characteristics to said second set of sound characteristics.</p> <p><u>Flanagan teaches:</u></p> <p>a speech analyzer (Fig.1: 12) for modifying voice characteristics (e.g., formant frequencies, pitch, amplitude) of synthesized speech. (col.2, ll.42-66; col.7, ll.6-46; col.8, ll.10-17)</p> <p><u>Slaney teaches:</u></p> <p>an interpolator (Fig.2: 34) for interpolating between sound characteristics (e.g., pitch) and voice characteristics (e.g., loudness). (col.2, ll.64-67; col.3, ll.1-10; col.4, ll.5-14, ll.37-65; col.8, ll.14-29)</p> <p>It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the method of generating voice characteristic transition of Georges to include modification of voice characteristics of synthesized speech as taught by</p>

	<p>Flanagan and interpolation between sound and voice characteristics as taught by Slaney in order to interpolate a voice characteristic transition for a disc jockey from a first set of sound characteristics to a second set of sound characteristics. The result would be a smooth sound transition from music to voice (Slaney: col.3, ll. 62-65) and a more natural sounding synthetic utterance (Flanagan: see Abstract, last 2 lines).</p>
<p>Claim(s) 27</p>	<p><u>Georges shows:</u></p> <p>The system according to claim 26, wherein said sound characteristics include pitch. (p.2, ¶ 0031, ll.6-8)</p>
<p>Claim(s) 28</p>	<p><u>Georges does not show:</u></p> <p>The system according to claim 26, wherein said interpolator is configured to:</p> <p>convert said first set and said second set of sound characteristics of said segments of audio signals to a corresponding first set of voice characteristics and second set of voice characteristics of said disc jockey; and</p> <p>generate an interpolation between said first set of voice characteristics and said second set of voice characteristics of said disc jockey to produce said voice characteristics transition.</p> <p><u>Flanagan teaches:</u></p> <p>a speech analyzer (Fig.1: 12) configured to modify voice characteristics (e.g., formant frequencies, pitch, amplitude) of synthesized speech. (col.2, ll.42-66; col.7, ll.6-46; col.8, ll.10-17)</p> <p><u>Slaney teaches:</u></p> <p>an interpolator (Fig.2: 34) configured to:</p> <p>convert a set of sound characteristics (e.g., pitch) to a set of voice characteristics (e.g., loudness). (col.4, ll.5-14).</p>

	<p>generate an interpolation between sound characteristics (e.g., pitch) and voice characteristics (e.g., loudness). (col.2, ll.64-67; col.3, ll.1-10; col.4, ll.37-65; col.8, ll.14-29)</p> <p>It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the method of generating voice characteristic transition of Georges to include modification of voice characteristics of synthesized speech as taught by Flanagan and interpolation between sound and voice characteristics as taught by Slaney in order to interpolate a voice characteristic transition for a disc jockey from a first set of sound characteristics to a second set of sound characteristics. The result would be a smooth sound transition from music to voice (Slaney: col.3, ll. 62-65) and a more natural sounding synthetic utterance (Flanagan: see Abstract, last 2 lines).</p>
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3. Claims 8, 22, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Georges in view of Flanagan and Slaney, and further in view of Cliff (U.S. Patent 6,344,607, hereinafter "Cliff").

Claim(s) 8	<p><u>The modified Georges does not show:</u></p> <p>The method according to claim 7, wherein said generating an interpolation includes generating said interpolation using a linear method.</p> <p><u>Cliff teaches:</u></p> <p>generating an interpolation between sound characteristics (e.g., tempo as in beat per minute) using a linear method. (Fig.8b&amp;c; col.6, ll.8-19)</p> <p>It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the linear method of interpolation of Cliff in the interpolation method of the modified Georges in order to gradually increases or decreases the tempo during transitions between sounds of different characteristics (Cliff: col.6, ll.8-19) and thus provide a smooth transition between sounds of different characteristics.</p>
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<p>Claim(s) 22</p>	<p><u>The modified Georges does not show:</u></p> <p>The computer-readable medium according to claim 21, wherein said generating an interpolation includes generating said interpolation using a linear method.</p> <p><u>Cliff teaches:</u></p> <p>generating an interpolation between sound characteristics (e.g., tempo as in beat per minute) using a linear method. (Fig.8b&amp;c; col.6, ll.8-19)</p> <p>It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the linear method of interpolation of Cliff in the interpolation method of the modified Georges in order to gradually increases or decreases the tempo during transitions between sounds of different characteristics (Cliff: col.6, ll.8-19) and thus provide a smooth transition between sounds of different characteristics.</p>
<p>Claim(s) 29</p>	<p><u>The modified Georges does not show:</u></p> <p>The system according to claim 28, wherein said interpolator generates an interpolation using a linear method.</p> <p><u>Cliff teaches:</u></p> <p>generating an interpolation between sound characteristics (e.g., tempo as in beat per minute) using a linear method. (Fig.8b&amp;c; col.6, ll.8-19)</p> <p>It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the linear method of interpolation of Cliff in the interpolation method of the modified Georges in order to gradually increases or decreases the tempo during transitions between sounds of different characteristics (Cliff: col.6, ll.8-19) and thus provide a smooth transition between sounds of different characteristics.</p>

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Georges in view of Flanagan and Slaney, and further in view of Boss et al. (U.S. Patent 5,915,237, hereinafter "Boss").

Claim(s)

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The modified Georges does not show:

The method according to claim 7, wherein said voice characteristics include average pitch.

Boss teaches:

the differences in voice qualities due to average pitch variation. (col.4, ll.66-67; col.5, ll.1-23; col.6, ll.49-53)

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of average pitch variation of Boss in the voice characteristics modification method of the modified Georges in order to distinguish each particular voice from others (Boss: col.5, ll.1-3). This is useful in distinguishing one synthesized DJ from another.

5. Claims 11, 14-17, 24-25, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Georges in view of Flanagan and Slaney, and further in view of Silverman (U.S. Patent 5,751,906, hereinafter "Silverman").

Claim(s)

11

The modified Georges does not show:

The method according to claim 7, wherein said voice characteristics include speaking rate.

Silverman teaches:

adjusting the speaking rate for synthesized speech. (col.28, ll.5-20)

It would have been obvious to a person of ordinary skill in the art at the time the

	invention was made to include the speaking rate teaching of Silverman in the voice characteristics modification method of the modified Georges in order to improve the intelligibility of synthesized speech. (Silverman: col.18, ll.39-46)
Claim(s) 14	<p><u>The modified Georges shows:</u></p> <p>The method according to claim 1, further comprising:</p> <p>receiving, by a synthetic disc jockey, a piece of text (e.g., audio files containing sentences or speech of a DJ), said voice characteristic transition, said starting time, and said ending time; (Georges: col.1, ¶ 0013)</p> <p><u>The modified Georges does not show:</u></p> <p>generating, by said synthetic disc jockey using a text-to-speech engine, a speech signal with a duration from said starting time to said ending time based on said piece of text and said voice characteristic transition.</p> <p><u>Silverman teaches:</u></p> <p>generating, by using a text-to-speech engine (Fig.2: synthesizer 30), a speech signal (Fig.2: 32) with a duration from a starting time to an ending time based on a piece of text (e.g., text from text processor 20). (col.1, ll.20-23; col.5, ll.31-43)</p> <p>It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the text-to-speech generation of Silverman in the voice characteristics modification method of the modified Georges in order to add prosody to text strings to be synthesized and to modify the prosody to improve speech synthesis quality. (Silverman: col.3, ll.12-37, ll.61-64)</p>
Claim(s) 15	<p><u>The modified Georges shows:</u></p> <p>The method according to claim 14, further comprising choosing a sample set of voice characteristics for said synthetic disc jockey based on a genre of said first segment of audio signal. (Georges: p.2, ¶ 0028, ll.6-10)</p>

Claim(s) 16	<p><u>The modified Georges shows:</u></p> <p>The method according to claim 14, wherein said piece of text (e.g., audio files) represents announcement information of a disc jockey (e.g., announcement of next song). (Georges: p.1, ¶ 0013)</p>
Claim(s) 17	<p><u>The modified Georges shows:</u></p> <p>The method according to claim 14, further comprising rendering said speech signal to generate an announcement of said synthetic disc jockey. (Georges: p.1, ¶ 0013)</p>
Claim(s) 24	<p><u>The modified Georges does not show:</u></p> <p>The computer-readable medium according to claim 21, wherein said voice characteristics include dynamic range of pitch.</p> <p><u>Silverman teaches:</u></p> <p>adjusting the pitch range of synthesized speech. (col.17, ll.1-16)</p> <p>It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the pitch range adjustment teaching of Silverman in the voice characteristics modification method of the modified Georges in order to improve the prosody features of synthesized speech. (Silverman: col.17, ll.3-9)</p>
Claim(s) 25	<p><u>The modified Georges shows:</u></p> <p>The computer-readable medium according to claim 18, said computer-readable medium being further encoded with processor-executable instruction sequences for:</p> <p>receiving, by a synthetic disc jockey, a piece of text (e.g., audio files containing sentences or speech of a DJ), said voice characteristic transition, said starting time, and said ending time; (Georges: col.1, ¶ 0013)</p>



	<p><u>The modified Georges does not show:</u></p> <p>generating, by said synthetic disc jockey using a text-to-speech engine, a speech signal with a duration from said starting time to said ending time based on said piece of text and said voice characteristic transition.</p> <p><u>Silverman teaches:</u></p> <p>generating, by using a text-to-speech engine (Fig.2: synthesizer 30), a speech signal (Fig.2: 32) with a duration from a starting time to an ending time based on a piece of text (e.g., text from text processor 20). (col.1, ll.20-23; col.5, ll.31-43)</p> <p>It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the text-to-speech generation of Silverman in the voice characteristics modification method of the modified Georges in order to add prosody to text strings to be synthesized and to modify the prosody to improve speech synthesis quality. (Silverman: col.3, ll.12-37, ll.61-64)</p>
Claim(s) 30	<p><u>The modified Georges shows:</u></p> <p>The system according to claim 26, further comprising:</p> <p>a synthetic disc jockey, said synthetic disc jockey being configured to receive a piece of text (e.g., audio files containing sentences or speech of a DJ) and said voice characteristic transition; (Georges: col.1, ¶ 0013)</p> <p><u>The modified Georges does not show:</u></p> <p>a text-to-speech engine,</p> <p>wherein said synthetic disc jockey is configured to generate, using said text-to-speech engine, a speech signal with a duration from said starting time to said ending time based on said piece of text and said voice characteristic transition.</p> <p><u>Silverman teaches:</u></p>

	<p>generating, by using a text-to-speech engine (Fig.2: synthesizer 30), a speech signal (Fig.2: 32) with a duration from a starting time to an ending time based on a piece of text (e.g., text from text processor 20). (col.1, ll.20-23; col.5, ll.31-43)</p> <p>It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the text-to-speech generation of Silverman in the voice characteristics modification method of the modified Georges in order to add prosody to text strings to be synthesized and to modify the prosody to improve speech synthesis quality. (Silverman: col.3, ll.12-37, ll.61-64)</p>
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### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

[1]	6,591,240	07/2003	Abe
[2]	5,986,199	11/1999	Peevers
[3]	5,384,893	01/1995	Hutchins
[4]	5,327,521	07/1994	Savic et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim Lao whose telephone number is 703-305-8955.

The examiner can normally be reached on M-F, 8:30am-5pm.

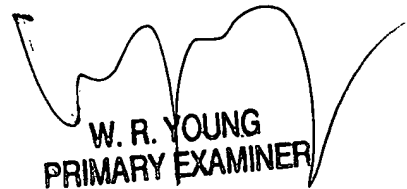
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 703-305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2655

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Tim Lao  
Examiner  
Art Unit 2655

TL  
07/01/04

  
W. R. YOUNG  
PRIMARY EXAMINER